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## Public Safety Wireless Network

*Saving Lives and Property Through Improved Interoperability*

April 15, 2003

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Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 Twelfth Street, SW  
12th St. Lobby, TW--A725  
Washington, DC 20554

Federal Communications Commission  
Office of Secretary

**Re: Reply Comments to the Commission's Notice of Proposed Rulemaking and Order, In the Matter of Amendment of the Commission's Rules Regarding Dedicated Short-Range Communication Services in the 5.850-5.925 GHz Band (5.9 GHz Band), [and] Amendment of Parts 2 and 96 of the Commission's Rules to Allocate the 5.850-5.925 GHz Band to the Mobile Service for Dedicated Short-Range Communications of Intelligent Transportation Services, WT Docket No. 01-90, ET Docket No. 98-95, RM 9096.**

Dear Ms. Dortch:

On behalf of the Public Safety Wireless Network (PSWN) Program and pursuant to Section 1.51 of the Commission's Rules, 47 C.F.R. § 1.51 (2002), enclosed herewith for filing are an original and four (4) copies of the PSWN Program's Reply Comments in the above-referenced proceeding(s).

Kindly date-stamp and return the additional, marked copy of this cover letter and filing to the person delivering it.

Should you require any additional information, please contact the undersigned

Respectfully submitted,

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Steven Proctor  
Executive Director,  
Utah Communications Agency Network  
Executive Vice-Chair,  
PSWN Executive Committee

Before the  
Federal Communications Commission  
Washington, DC 20554

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APR 15 2003

Federal Communications Commission  
Office of Secretary

In the Matter of

Amendment of the Commission's Rules	)	No.
Regarding Dedicated Short-Range Communication	)	
Services in the 5.850–5.925 GHz Band (5.9 GHz	)	
Band)	)	
	)	
Amendment of Parts 2 and 90 of the Commission's	)	ET Docket No.
Rules to Allocate the 5.850–5.925 GHz Band to the	)	
Mobile Service for Dedicated Short-Range	)	
Communications of Intelligent Transportation	)	
Services	)	

To: The Commission

**REPLY COMMENTS OF THE PUBLIC SAFETY WIRELESS NETWORK**

by: The Public Safety Wireless Network Program

Date: April 15, 2003

**Before the  
Federal Communications Commission  
Washington, DC 20554**

In the Matter of	)	
	)	
Amendment of the Commission's Rules	)	WT Docket No. 01-90
Regarding Dedicated Short-Range Communication	)	
Services in the 5.850-5.925 GHz Band (5.9 GHz	)	
Band)	)	
	)	
Amendment of Parts 2 and 90 of the Commission's	)	ET Docket No. 98-95
Rules to Allocate the 5.850-5.925 GHz Band to the	)	RM-9096
Mobile Service for Dedicated Short-Range	)	
Communications of Intelligent Transportation	)	
Services	)	

**REPLY COMMENTS OF THE PUBLIC SAFETY WIRELESS NETWORK**

I, \_\_\_\_\_ The Public Safety Wireless Network (PSWN) Program Executive Committee (EC) respectfully offers the following Reply Comments for the Commission in response to the Notice of Proposed Rulemaking and Order<sup>2</sup> (NPRM&O) adopted by the Federal Communications Commission (Commission) pursuant to WT Docket No. 01-90. The PSWN Program notes that the Commission has received only a small volume of comments pertaining to this rulemaking and only a \_\_\_\_\_ the \_\_\_\_\_ from public safety agencies, government

<sup>1</sup> The PSWN Program is a federally funded initiative operating on behalf of all local, state, federal, and tribal public safety agencies. The Department of Justice and the Department of Homeland Security are jointly leading the PSWN Program's efforts to plan and foster interoperability among public safety wireless networks. The PSWN Program is a 10-year initiative that is an effort to ensure that no man, woman, or child loses his or her life because public safety officials cannot talk to one another.

<sup>2</sup> See NPRM&O, In the Matter of Amendment of the Commission's Rules Regarding Dedicated Short-Range Communication Services in the 5.850-5.925 GHz Band (5.9 GHz Band), [and] Amendment of Parts 2 and 90 of the Commission's Rules to Allocate the 5.850-5.925 GHz Band to the Mobile Service for Dedicated Short-Range Communications of Intelligent Transportation Services, WT Docket No. 01-90, ET Docket No. 98-95, RM 9096, FCC 02-302, rel. November 15, 2002 (*DSRC NPRM&O*).

authorities, and groups that represent them.<sup>3</sup> It is of critical importance that the Commission take note of the advice that has been offered by that limited group of participants that demonstrate their familiarity and concern with the applications being discussed in this rulemaking proceeding.

## **I. BACKGROUND**

2 For the past 5 years, the Commission has worked in cooperation with the United States Department of Transportation (DOT) to develop service rules and deploy dedicated short-range communications (DSRC) technology to accomplish the objective of improved traffic safety.<sup>4</sup> The Intelligent Transportation Society of America (ITS-A) successfully petitioned the Commission for spectrum in the 5.9 gigahertz (GHz) band to support the development and eventual deployment of DSRC applications.<sup>5</sup> Since that time, several valuable applications have been developed that could enhance public safety capabilities and provide for greater protection and security for travelers and merchants using our Nation's highways and surface transportation infrastructure.

3 The challenges faced by the Commission in incorporating DSRC applications into existing spectrum policy and licensing rules are formidable. The Commission must remain vigilant that adoption and implementation of this technology does not conflict with existing licensees and spectrum usage by creating interference in neighboring bands. In addition, the PSWN Program is also aware of the multitude of issues facing manufacturers, vendors, and this promising service in developing, testing, and finally deploying DSRC systems.

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<sup>3</sup> Of the 30 comments received to date on the NPRM&O released in November 2002, WT Docket 01-90 and ET Docket No. 98-95, 12 have been from public safety-oriented agencies, government, and associations that have submitted comments on their behalf.

<sup>4</sup> See Pub. L. 105-178, June 9, 1998, 23 U.S.C. § 5206.

## II. STATEMENT OF INTEREST

4 The PSWN Program has followed developing trends in the DSRC arena since the Commission first announced the establishment of this docket.<sup>6</sup> Initially, the PSWN Program voiced concerns that the spectrum allocated in the 5.9 GHz band for DSRC services would be considered fulfillment of part of the needed public safety spectrum identified in the Public Safety Wireless Advisory Committee (PSWAC) Report.<sup>7</sup> ITS-A emphasized in its Reply Comments that the Commission should not identify this spectrum as realizing the recommendations made in the PSWAC Report for additional spectrum to be made available in support of public safety operations.<sup>8</sup> With that caveat, the PSWN Program supports the adoption of DSRC technology in the 5.9 GHz band. If properly implemented, DSRC will serve to promote traffic safety and provide public safety personnel with additional tools to aid in the protection of life and property by securing the Nation's highways from possible danger due to weather-related road conditions, accidents, congestion, and emergencies.

## III. DISCUSSION

### A. The 5.9 GHz DSRC Band Should Primarily Be Used to Support Public Safety Services

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<sup>5</sup> See Allocation Report and Order, 14 FCC Red 18221 et. seq.

<sup>6</sup> See DA-01-1047, Wireless Telecommunications Bureau Announces That Record Regarding "Status Report on Licensing and Service Issues and Deployment Strategies for DSRC-Based Intelligent Transportation Services in the 5.850-5.925 GHz Band" is Available on the Electronic Comment Filing System (ECFS), rel. April 24, 2001.

<sup>7</sup> See Reply Comments in Response to the Comments of Other Parties of the PSWN Program on the ITS-A Status Report On Licensing and Service Issues and Deployment Strategies For DSRC-Based intelligent Transportation Services in the 5.850-5.925 GHz Band, WT Docket No. 01-90, May 31, 2001, at pp. 3-4.

<sup>8</sup> "ITS America understands PSWN's concern that any DSRC spectrum designated for 'public safety' usage not mistakenly be taken as a substitute for other critically needed public safety spectrum." See Reply Comments of the Intelligent Transportation Society of America, In the Matter of Amendment of the Commission's Rules Regarding Dedicated Short-Range Communication Services in the 5.850-5.925 GHz Band (5.9 GHz Band), WT Docket No. 01-90, May 31, 2001, at p. 5.

principal purpose of DSRC must be to promote public safety on the nation's highways.'" In addition, the PSWN Program supports the proposition that would limit eligibility for secondary use of this band to non-public safety entities that do not charge a fee for their services, i.e. non-commercial DSRC providers. Such internal and other not-for-profit uses of DSRC spectrum should only be permitted on a secondary basis to public safety users.<sup>10</sup> The PSWN Program also agrees with the recommendations of NATOA/NLC that would make such non-public safety use conditional on the premise that "[a]ny secondary use of this spectrum must be terminated immediately if needed by primary applications. Likewise, any interference caused to primary users by secondary users must lead to a cessation of secondary use until the cause of interference is removed."<sup>11</sup> The PSWN Program also notes its agreement with the comment of the American Association of State Highway and Transportation Officials Special Committee on Wireless Technology that, in those cases where interference with public safety DSRC operations is detected, the secondary non-public safety users should be obliged to rectify those issues.<sup>12</sup>

6. The PSWN Program also agrees with parties who assert that if the Commission chooses to license non-public safety applications on the 5.9 GHz band, it should also partition that spectrum to separate those users from public safety operations.<sup>13</sup> In that way, the Commission can preemptively reduce the possibility of interference and congestion limiting the effectiveness of DSRC systems for public and traffic purposes. This action

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<sup>9</sup> See Comments of the Port Authority of New York and New Jersey, Tunnels Bridges and Terminals Department, NPRM&O, WT Docket No. 01-90, ET Docket No. 98-95, RM 9096, March 17, 2003 (*PA-TBT Comments*), at p. 1. See also Comments of the E-Z Pass Interagency Group, NPRM&O, WT Docket No. 01-90, ET Docket No. 98-95, RM 9096, March 17, 2003, (*E-Z Pass Comments*) at p. iii, 4; Comments of the New York State Thruway Authority, NPRM&O, WT Docket No. 01-90, ET Docket No. 98-95, RM 9096 (*NYS Thruway Authority Comments*), March 17, 2003, at p. 5.

<sup>10</sup> See, e.g., Comments of the National Association of Telecommunications Officers and Advisors (*NATAO*) and the National League of Cities (*NLC*), NPRM&O, WT Docket No. 01-90, ET Docket No. 98-95, RM 9096, March 17, 2003 (*NATAO/NLC Comments*) at p. 2; *PA-TBT Comments* March 17, 2003, at p. 2.

<sup>11</sup> *NATAO/NLC Comments*, March 17, 2003, at p. 5.

<sup>12</sup> Comments of the American Association of State Highway and Transportation Officials Special Committee on Wireless Technology, NPRM&O, WT Docket No. 01-90, ET Docket No. 98-95, RM 9096, (*AASHTO Comments*) March 12, 2003, at p. 5.

<sup>13</sup> See *NATAO/NLC Comments* at p. 9.

duplicating the undesirable outcome created by allowing competing architecture and applications to operate in close proximity, using interleaved spectrum and resulting in unnecessary time and expense as incurred by users in the 800 megahertz (MHz) band. Moreover, the PSWN Program reasserts that the majority of the spectrum allocated to support DSRC technology should be earmarked for public safety use, with the remainder held in reserve or dedicated to non-public safety applications.

**B. The Definition of Public Safety Services Should Remain Consistent with Section 309 of the Communications Act**

7. The PSWN Program advocates that the Commission continue to use the current definition of “public safety services” as articulated in § 309 of the Communications Act of 1934.<sup>14</sup> As other commenters have affirmed, “[a]n acknowledgement that public safety as defined is not limited to fire, police, and ambulance services is needed.”<sup>15</sup>

**C. Adoption of a Standard Would Hasten Deployment and Promote Interoperability**

8. Those parties whose responses to the Commission’s public comment period urge the Commission to adopt a single standard for DSRC that would apply to both public safety and non-public safety applications. General comments from the public and organizations that have submitted recommendations on this docket endorse an open standard to facilitate development of new applications by reaching a wider market, and to hasten deployment of public safety applications.<sup>17</sup> The PSWN Program asserts that adoption of a single American National Standards Institute-approved standards would not

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<sup>14</sup> 47 USC § 309 (j)(2).

<sup>15</sup> Comments of Delaware Department of Transportation, In the Matter of Amendment of the Commission’s Rules Regarding Dedicated Short-Range Communication Services in the 5.850–5.925 GHz Band (5.9 GHz Band), WT Docket No. 01-90, March 14, 2003, at p. 2.

<sup>16</sup> See, e.g. NATOA/NLC Comments, March 17, 2003, at p. 8; AASHTO Comments, March 12, 2003, at p. 3.

<sup>17</sup> See, e.g. Comments of the Intelligent Transportation Society of America, WT Docket No. 01-90, ET Docket No. 98-95, RM 9096, (*ITS-A Comments*), March 17, 2003, at pp. 7–8; Comments of the Maine Turnpike Authority, WT Docket No. 01-90, ET Docket No. 98-95, RM 9096, (*MTA Comments*) March 17, 2003, at p. 2; Comments of the E-Z Pass Interagency Group, WT Docket No. 01-90, ET Docket No. 98-95, RM 9096, March 17, 2003, at p.7.

advancement of DSRC systems, nor should it impair competition. However, the Commission should also regularly review this standard and modify it as necessary to ensure it remains current and accommodates the development of new applications. As ITS-A points out, this regular scrutiny will also help to enable the Commission to coordinate consistent policies with DOT for the development and deployment of DSRC.<sup>18</sup> In addition, the PSWN Program agrees with ARINC in supporting type certification of DSRC equipment to ensure compliance with the Commission's Rules.<sup>19</sup>

**D. Flexible Licensing Policies Would Promote Interoperability**

9. In its comments of March 17, 2003, the PSWN Program endorsed a geographic licensing plan for the regulation of DSRC technology. The PSWN Program noted that the appropriate size of the licensing area should vary based on the kind of application being contemplated. The PSWN Program also finds the arguments of ITS-A and others for a site-based licensing policy to be persuasive.<sup>20</sup> The PSWN Program renews its previous recommendations for the Commission to consider a policy that would provide for some agencies, such as toll authorities, that "are responsible for a large number of facilities across significant distances...to obtain a 'corridor' license encompassing all its activities."<sup>21</sup> The PSWN Program asserts that a plan that combines licensing by rule for on-board units, site-specific licensing, and geographic licensing, all based on the type of application being regulated would be both feasible and effective.

**E. The Commission Should Modify the Definition of DSRC to Take Appropriate Advantage of This Technology**

**1. Permit DSRC Technology to Support Voice Applications in the 5.9 GHz Band**

10. The Commission also requested comments regarding whether it should allow DSRC

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<sup>18</sup> ITS-A Comments, March 17, 2003, at p. 6.

<sup>19</sup> Comments of Aeronautical Radio, Inc. (ARINC), WT Docket No. 01-90, ET Docket No. 98-95, RM 9096 (ARINC Comments), March 14, 2003, at p. 7.

<sup>20</sup> ITS-A Comments, March 17, 2003, at p. 15; ARINC Comments at p. 12.

<sup>21</sup> MTA Comments, March 17, 2003, at p. 2; NYS Thruway Authority Comments, at p. 9.



services on the 5.9 GHz band to be used for transmitting voice communications in addition to transferring data.<sup>22</sup> The PSWN Program supports permitting voice communications on the local area network (LAN) architecture to be used for the implementation of DSRC technology, and therefore agrees with those parties submitting comments on this docket that recommend that the Commission delete the phrase “non-voice” from its Rules pertaining to DSRC.<sup>23</sup> The Commission should furnish manufacturers with the opportunity to thoroughly explore the use of DSRC systems to achieve their fullest potential.

## **2. Commercial Use of DSRC Technology on the 5.9 GHz Band Should Not Be Permitted**

11 The Commission also requested comments regarding the adoption of the term “private environments” in place of the current regulation permitting “commercial environments.” The PSWN Program reiterates its support for the revised definition proffered by ITS-A to change that definition and to restrict use of DSRC technology on the 5.9 GHz band to not-for-profit entities, noting that “the band is neither appropriate nor intended for cellular-based commercial applications such as CMRS.”<sup>24</sup> If the Commission is inclined to permit the use of telematics for commercial entities, it should use other spectrum so that those operations will not pose a threat to the reliability of compelling traffic safety and public safety objectives.

## **F. The Commission Should Only Require Pre-Coordination of DSRC Services to Verify Non-Interference with Sensitive Operations**

12. The Commission also requested comments with respect to the necessity of prior coordination between all DSRC-based intelligent transportation systems (ITS) and fixed satellite services (FSS). The PSWN Program concurs with ITS-A that requiring prior coordination in all

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<sup>22</sup> DSRC NPRM&O, WT Docket No. 01-90, ET Docket No. 98-95, RM 9096, at para. 15.

<sup>23</sup> See, e.g., AASHTO Comments, March 12, 2003, at p. 4; ARINC Comments, March 14, 2003, at p.2; NATAO/NLC Comments, March 17, 2003, at p. 2.

<sup>24</sup> DSRC NPRM&O, WT Docket No. 01-90, ET Docket No. 98-95, RM 9096, at para. 13.

<sup>25</sup> ITS-A Comments, March 17, 2003, at pp. 20–21.

cases would create an onerous cost and unnecessary burden,<sup>26</sup> and should be required only in cases where DSRC will operate nearby other sensitive and safety-of-life applications, such as FSS. Regarding an alternative to mandatory coordination, the PSWN Program also agrees with parties recommending **that** the Commission should work with local licensing authorities nationwide to compile a database that would store user information including geographic data to easily catalog the locations and identities of **all** DSRC systems.<sup>27</sup> This comprehensive record could help primary licensees obtain a fast remedy in those cases where conflicting secondary applications create interference and could negatively impact public safety, traffic safety, and other crucial functions taking place in the 5.9 GHz band.

#### **IV. CONCLUSION**

13 The PSWN Program appreciates this opportunity to provide additional information for the Commission's consideration in developing service rules and policies for the deployment of DSRC-based ITS technology in the 5.9 GHz band. The Commission should use this rulemaking to reinforce the commitment it has made to support public safety communications by ensuring the primary use of this band will be for improvement of traffic safety and the security of infrastructure. The PSWN Program acknowledges the contributions of the parties that have provided their insights to assist the Commission in developing service rules, policies.

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<sup>26</sup> Comments of ITS America on the Petition for Clarification of Mark IV Industries, Ltd., IVHS Division ("Mark IV"), and the Petition for Reconsideration or Clarification of Panamsat Corporation (Panamsat), RM 9096, ET Docket No. 98-95, March 2, 2000, at p. 2.

<sup>27</sup> AASHTO Comments, March 12, 2003, at p. 3.

and procedures that will make the most of the spectral available on this hand protect life property.

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A handwritten signature in black ink, appearing to read "Steven Proctor". The signature is written in a cursive, flowing style. Below the signature is a horizontal line.

Steven Proctor  
Executive Director.  
Utah Communications Agency Network  
Executive Vice-Chair,  
PSWN Executive Committee

**Before the  
Federal Communications Commission  
Washington, DC 20554**

**Certificate of Service**

In the Matter of

Amendment of the Commission's Rules	)	
Regarding Dedicated Short-Range Communication	)	WT Docket No. 01-90
Services in the 5.850-5.925 GHz Band (5.9 GHz	)	
Band)	)	
	)	
Amendment of Parts 2 and 90 of the Commission's	)	ET Docket No. 98-95
Rules to Allocate the 5.850-5.925 GHz Band to the	)	RM-9096
Mobile Service	)	
Short-Range	)	
Communications of Intelligent Transportation	)	
Services	)	

I, Richard N. Allen, Senior Associate, Booz Allen Hamilton, 8283 Greensboro Drive, McLean, Virginia, 22102-3838, hereby certify that on this date I caused to be served, by first-class mail, postage prepaid (or by hand where noted) copies of the Public Safety Wireless Network Program's Reply Comments, *In the Matter of Amendment of the Commission's Rules Regarding Dedicated Short-Range Communication Services in the 5.850-5.925 GHz Band (5.9 GHz Band)*, [and] *Amendment of Parts 2 and 90 of the Commission's Rules to Allocate the 5.850-5.925 GHz Band to the Mobile Service for Dedicated Short-Range Communications of Intelligent Transportation Services*, WT Docket No. 01-90 and ET Docket No. 98-95, the original of which is filed herewith and upon the parties identified on the attached service list.

DATED at Fair Oaks, Virginia this 15th day of April 2003

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Richard N. Allen

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